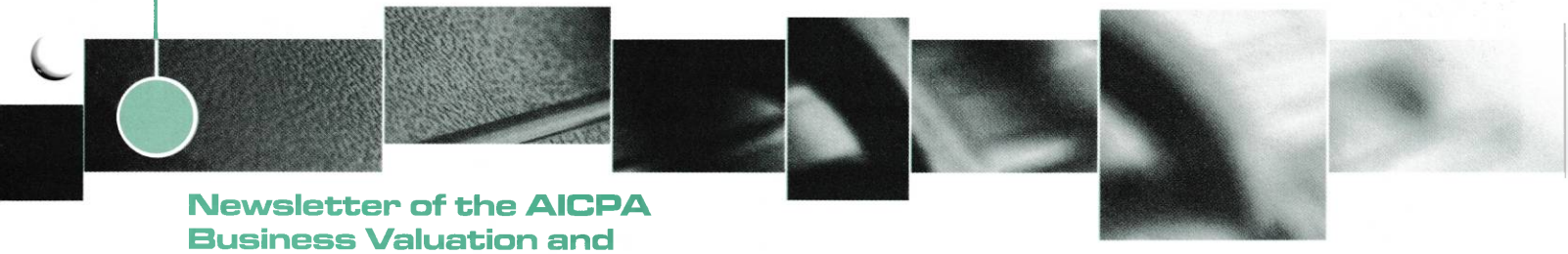
2006

Focus, vol. 2 no. 6, October/November/December 2006

American Institute of Certified Public Accountants. Business Valuation and Forensic & Litigation Services Section

FOCUS

October/November/ December 2006
Vol. 2, No. 6



Newsletter of the AICPA
Business Valuation and
Forensic & Litigation Services Section

What's Inside

Focusing on Fraud: High- and Low-Stakes Gambles

In late September, the AICPA National Conference on Fraud and Litigation Services was held in Las Vegas. The following article focuses on highlights of some of the presentations in the fraud track. Some of the presentations in the litigation track will be covered in another article. The sessions summarized in this article made clear that success in preventing and detecting fraud in most organizations hinges on meeting several needs, namely, to assess risk, establish effective controls, set the right tone at the top, and exercise a healthy skepticism about how well the organization's culture and operations are being maintained.

The Bellagio in Las Vegas was the site of the AICPA National Conference on Fraud and Litigation Services. The increasing appeal of this annual conference was attested to by the increased number of practitioners attending, this year totaling about 525. Whether a practitioner's focus was fraud or other litigation services or both, the 42 sessions offered something for everyone.

Glenn Newman, conference steering committee chair, opened the conference with some introductory remarks and then introduced the keynote speaker Dick Thornburgh, whose long and distinguished career in public service includes having served as Governor of Pennsylvania and U.S. Attorney General under two presidents. More recently, Mr. Thornburgh served as court-appointed Examiner in the World.Com bankruptcy proceedings and cochaired the independent investigation into the alleged use of false documents by CBS News' "60 Minutes Wednesday" to report on President George W. Bush's service in the Texas Air National Guard.

In his remarks, Mr. Thornburgh focused primarily on the lessons learned through the World.Com and Arthur Andersen experiences. His message to practitioners, especially auditors, was: Have professional skepticism. In discussing Andersen's experience with Enron, he commented that red flags were abundant and possible risks of misstatement were missed. He believes, moreover, that Andersen lacked a forensic type of analysis and relied on management explanations. Although taking management explanations at face value may appear to serve the client, Mr. Thornburgh believes that failing to challenge management assertions and be skeptical does not in the end serve the interest of the client. Granted that the pressure on auditors remains high, he said, and includes the risk of alienating the client, but the loss of public trust is the biggest loss in these situations.

Scandal by the Sea

An investigation as dramatic and notorious as the high-profile investigations in which Governor Thornburgh participated is the investigation that was the subject of a concurrent session entitled "Government Fraud & Corruption—Investigation of the City of San Diego and Its Pension System." This much-publicized instance of government fraud and corruption illustrates the consequences of the failure to challenge management and instead to acquiesce to a culture of corruption. The session presenter was Troy Dahlberg, JD, CPA/ABV, a managing director and the national practice leader for Kroll's Forensic Accounting and Litigation Consulting Practice. Dahlberg, along with Arthur Levitt, Jr., and Lynn E. Turner, served on the Audit Committee formed to investigate the San Diego City Employees' Retirement System and the city's sewer rate structure. In its report, the

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FOCUS,
October, November, December 2006, Volume 2, Number 6. Published by the American Institute of Certified Public Accountants.

Audit Committee said, "Evidence made available in this investigation demonstrates numerous failures of San Diego City government—on the part of government officials and outside professional 'gatekeepers' alike—to conform to the law, to adhere to principles of sound governance and financial reporting, and to protect the financial integrity of the city's pension system and thereby the welfare of the City itself. . . . The evidence demonstrates not mere negligence, but deliberate disregard for the law, . . . for fiduciary responsibility, and . . . the financial welfare of the City's residents . . ."

The report concluded that the city's pension system was plunged into crisis not by low investment returns or unpredictable events but by "years of reckless and wrongful mismanagement involving any number of city and pension board officials." In addition, the city weakened its financial position by using pension system assets to pay for the health care costs of city retirees. Furthermore, the pension board "made false and misleading public statements to disguise the extent to which pension system assets would be insufficient to pay the promised benefits to City retirees."

To get more details of the long list of missteps and misbehavior in this story, read the report, which is available at

http://www.signonsandiego.com/news/metro/pension/20060808-9999-krollreport.html

City officials began "to face reality" when the city's new auditor, KPMG, refused to issue an audit report on the city's financial statements. Consequently, its access to municipal bond markets was cut off and a financial crisis seemed imminent. Even so, early investigations met resistance and were fruitless.

When issued on August 8, 2006, the report stated, "Even today, . . . the City government has not completely come to grips with the depth of its problems and the need for financial reform. More than two years after the fact, the City still has not found a way to successfully perform fundamental bookkeeping tasks as reconciling the balance in its cash accounts with the cash balance on its financial statements for the fiscal year 2003."

Recommendations for Reform

The report recommended, "Foremost, accountability for fiscal decision-making and disclosure . . . be built into City's financial reporting system." Accomplishing this would require strengthening the Chief Financial Officer's (CFO's) role and accountability. Further accountability could be achieved by requiring that the city's financial statements include an annual statement by both the mayor and CFO that they are responsible "for establishing and maintaining an effective system of internal control over financial reporting.

The report recommends the creation of a permanent audit committee and other measures to enhance accountability, including the appointment of an independent monitor responsible to oversee "all aspects of the City's system of budget, finance, and internal control over financial reporting."

International Fraud

Another presentation focused on a fraud investigation of perhaps even higher visibility than the San Diego City investigation. The session "International Investigations—UN Oil for Food Investigation" was presented by Mark G. Califano, who served as Chief Legal Counsel for the Indpendent Inquiry Committee into the United Nations Oil-for-Food Program under Chairman Paul Volcker. Mr. Califano managed a staff of 70 lawyers, investigators, analysts, and experts and directed one of the largest investigations ever conducted, covering six continents and producing five reports in one year concerning the operation of the program and its illicit activity.

High-Profile Fraud in the Nonprofit World

High-profile cases of fraud in nonprofit organizations also provide opportunities for lessons in fraud prevention and detection. In the session, "How Fraudsters Profit from Nonprofit Fraud," these lessons were offered by James S. Fellin, CPA, CFE, the managing principal of The Nottingham Group LLC, Pittsburgh, PA; and Steven D. Irwin, Esq., a partner who chairs employment and government relations practice groups at Leech Tishman Fuscaldo & Lampi, LLC, Pittsburgh, PA. At the outset, the

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presenters pointed out that, although charitable status has been accorded to many entities, not all nonprofit organizations are charities or operate like them. Unions, trade associations, and professional societies, as well as hospitals and academic institutions, may also have nonprofit status. Regardless of a nonprofit entity's mission, it is as vulnerable to fraud as profit-making organizations. Indeed, the presenters say that "certain factors intrinsic to nonprofits make them uniquely susceptible to additional schemes of fraud and abuse."

The presenters reviewed several fraud cases associated with high-profile organizations. For example, they started with a review of the United Way of America case, which erupted in 1992. In this case, the former president of United Way, William Aramony, was charged with misappropriating funds to support his lavish lifestyle. A CPA serving as CFO was also convicted of several fraud-related charges. The unfortunate consequence of the scandal was that hundreds of member agencies cut ties with United Way. These severed relationships caused a drop in funds from $45 million to $13 million in just one year.

Mr. Aramony apparently took advantage of an over-trusting board giving him discretion for use of United Way funds. The lesson to be learned is, "Do not let any employee or director obtain too much power without proper oversight."

Several other high-profile cases were cited, including the relatively recent frauds perpetrated against the American Red Cross subsequent to the devastation wreaked by Hurricane Katrina in 2005. Although the Red Cross may not be liable for the funds fraudulently diverted by call center counselors, it has exposure for the oversight issues that arose relating to how funds were distributed. As with all the cases cited by the presenters, the trust of contributors and supporters diminishes or is completely lost. An important lesson in the Red Cross case is, "Don't let the need for immediate action override controls and good business practice for fund utilization."

A long list of risk factors inherent in nonprofits included the following factors:

- All volunteer board of directors
- Executive director can have excessive control
- Little or no financial oversight
- Limited internal accounting controls due to scarce resources
- Lack of adequate separation of duties

The presenters cited many more risk factors related to organization, employee turnover and compensation, and operational issues. They also offered a long list of steps to take in investigating and preventing fraud. Here are a few tips that they emphasized:

- Take a hard look at restricted funds.
- Review meeting minutes. They will reveal where the power in the organization lies.
- Look at employee compensation from top to bottom. Compare this compensation with the competition to ensure staff are being paid fairly and are unlikely to feel justified in misappropriating the organization's assets.

Fraud on a Smaller Scale

Fraud in smaller organizations was the subject of several sessions, one of which was "Corporate Fraud Investigation: Financial Fraud in Smaller Companies," presented by Keith Slotter, CPA, Assistant Director of the FBI Academy in Quantico, VA. Mr. Slotter said that the FBI is investigating 445 corporate fraud cases. Each month, two to three new cases open. The data show that indictments and convictions identify senior level managers most frequently as the perpetrators. He gave an overview of the types of fraud as defined by the Department of Justice (DOJ) after the corporate scandals of 2002. The DOJ issued a three-part formal definition that describes the illegal activities that encompass corporate fraud: accounting fraud, self-dealing by corporate insiders, and obstructive conduct. He defined accounting fraud or "cooking the books," as "the falsification of financial information, including false accounting entries, bogus trades designed to inflate profits or hide losses, and false transactions designed to evade regulatory "oversight." Cooking the books, he said, is more common in large companies. Small companies are under less pressure to present a false image to shareholders. In companies with fewer than 100 employees, financial statement fraud accounts for less than 10% of all cases.

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FYI . . .

Bad news about business ethics

"Graduate students are cheating at an alarming rate and MBA students are doing so at even higher levels," according to a press release from Penn State's Smeal College of Business. A Smeal College professor and her colleagues examined the results of a survey of 5,331 students at 32 graduate schools in Canada and the United States. The study asked about 13 different types of cheating.

Fifty-six percent of graduate business students admitted to cheating at least once in the last year; 47 % of non-business students admitted doing the same. The research found that policies, rules, and the potential for getting caught had little bearing on the students' decision to cheat. Instead, the most powerful influence on their behavior was their perception that other students were cheating.

In response to their findings, the report authors recommend that college administrators work with faculty and students to create "a culture of integrity and responsibility."

No connection between student cheating and unethical behavior in business dealings has ever been made. Among the explanations given, the "more important and more discouraging" one, Donald McCabe, a management professor at Rutgers University (NJ), hears from students is that "they're just emulating the behavior they see out in the business world" where, they say, "it doesn't matter how you get it done. The key thing is to get it done."

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New Track on Fair Value Added to AICPA National Business Valuation Conference

Conference is set for December 3 - 5, 2006 in Austin Texas. Keynote speaker is Sherron Watkins, Former VP of Enron Corporation.

More than 800 practitioners and CPA professionals will gather in Austin, Texas, for the largest Business Valuation Conference in North America. This year, the conference will include a new cutting edge track called "Fair Value," providing comprehensive exploration and education on the newest concept in business valuations and designed for all levels from introductory to advanced. The Conference will also include in-depth tracks on Niche Vignette, Litigation, Emerging Issues, and Fundamentals.

"Because business valuation and forensic and litigation services are the fastest growing niche markets in the CPA profession, we have focused programming on this relatively new discipline where professionals can tap the insight and knowledge from leaders in the field to learn about these more forward-looking and subjective methods," said Robert E. Duffy, Conference Chairman.

For more information about the conference or to register, go to www.cpa2biz or call 1-888-777-7077.

Nevertheless, smaller companies are more likely to be victimized by asset misappropriation schemes related to accounts payable or accounts receivable. Cash schemes frequently involve larceny, skimming, or fraudulent disbursements perpetrated through billing schemes, payroll schemes, expense reimbursements, check tampering, or register disbursements. Asset misappropriation schemes involving inventory and other assets usually involve misuse or larceny.

Slotter said that one type of fraud everyone underestimates is obstructive conduct. Some high-profile cases reported in the media make very evident the tactics used to cover up fraudulent behavior. Some relate to the preservation of evidence: shredding documents; erasing computer files; creating or altering documents to justify illegal conduct; and purposely failing to provide all documents and files requested in a subpoena. Other examples of obstructive conduct include providing false testimony in SEC depositions; lying to criminal investigators; influencing or threatening another witness; and failing to maintain records for a prescribed period of time.

Profiling the Culprits

Citing statistics from the Association of Certified Fraud Examiners' 2004 study, Slotter pointed out that fraud perpetrators usually are not career criminals: 82% have never before been charged or convicted. The study also points out that the longer an employee has worked in the company, the higher the losses; the median tenure for perpetrators is five years. Gender does not seem to be a significant determinant in fraud perpetration: Men account for 53% of fraud schemes, and women for 46%. However, losses from schemes devised by men are more than twice as large as those in schemes devised by women: The median loss from men's schemes is $160,000; for women, it's $60,000.

Knowing When to Hold

In discussing what to do when fraud is discovered, Slotter cited the problem of investigators not possessing adequate interviewing skills. One technique he cited concerned investigating a case in which collusion is suspected. In such cases, the suspects should be interviewed separately to uncover any discrepancies. Slotter also said that, although interviewers need to know when to hold back, more often they need to push harder. He said that we tend to think that we push too hard, even though interviewees usually will accept the hard push.

Slotter also said that the interviewer needs to have "healthy skepticism." Interviewers sometimes want to believe the suspect is telling the truth, but denial is the normal response of those who are guilty. The interviewer can persist in questioning after a denial by asking questions such as, "If you didn't do it, what type of person do you think did?" or "Why do you think someone would do these things?" A question that might help the interviewer decide whether a suspect is lying or not is, "What should the punishment be?" Ordinarily, an innocent person will say he or she doesn't know or that the book should be thrown at the guilty party. A guilty person will more likely recommend leniency.

Practitioners' Risks

Among the concurrent sessions that immediately followed Mr. Thornburgh's keynote address was a session entitled "Civil and Criminal Liability in Performing Fraud Investigations." The focus of the session was the risks faced by practitioners in forensic investigations. The risks include civil liability, such as suits alleging violations of the securities laws by the Securities Exchange Commission and private plaintiffs, as well as disciplinary actions. Criminal liability is also a risk, as is the practical risk to reputation of being a witness to an alleged crime and consequently being called to testify before a grand jury or at trial. The presenters in this session were Fernando L. Aenlle-Rocha, a partner, and Patrick O. Hunnius, an associate in the law firm of White & Case LLP, Los Angeles.

One of the examples cited in the presentation was the SEC's filing of civil fraud charges against the former chief financial officer and former chief executive officer of medical-device company Endocare, asserting they "significantly overstated" income. The company agreed to settle fraud charges for engaging in a widespread accounting fraud and then making false and misleading public statements about the results of an internal investigation. The SEC may have considered charging the attorney, who was the independent investigator in the case, with "aiding and abetting" company executives, perhaps by participating in the fraud by performing an insufficient or misleading investigation.

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The presenters then cited the example of Computer Associates to illustrate the practical risks that may be associated with fraud investigations. Computer Associates conducted an internal investigation of possible accounting irregularities. The company represented that it would cooperate fully with the DOJ and the SEC, and made similar public representations regarding cooperation. In interviews with outside counsel, however, executives allegedly "did not disclose," "falsely denied," and "otherwise concealed" the existence of inappropriate accounting practices. Consequently, the executives were indicted for obstruction of justice. For the outside counsel and auditor, the consequence was now being a witness to an alleged crime and possibly having to testify before a grand jury or at trial.

The presenters offered the following guidelines for helping to minimize the risk of liability:

- Communicate with special litigation counsel:
  - o What is the ultimate workproduct?
  - o Who is the ultimate customer?
- Avoid the appearance of obstruction:
  - o Establish protocols of how things are to be done:
    - — Document management.
    - — Interviews (conducting and recording).
    - — Disclosures to employees concerning privilege and purpose of the inquiry.
  - o Establish a record of how things *were* done:
    - — What evidence was received, from whom, and when?
    - — What evidence was given to the government, in what form, and when?

Fraud Scene Investigations

Readers who watch the television program "CSI Las Vegas" are familiar with the surveillance cameras that monitor hotel casino floors as well as other areas in a hotel. "Surveillance and Security in the Gaming Industry" was the subject of the session presented by Grant Ashley, CPA, formerly with the FBI, and currently Vice President of Corporate Security, Surveillance, and Investigations for Harrah's Entertainment, Inc. Mr. Ashley did not focus on accounting fraud in the gaming industry, but on other fraudulent activities. He discussed some of the ways in which a casino could monitor gaming activities and investigate aberrations that might be red flags. A change in patterns of winning and losing at a blackjack table, for example, would be investigated to uncover the reason for the change. In addition, company policy is to maintain separate security and surveillance staffs in order to avoid any possible collusion.

In addition to these controls, the company monitors patron and employee activity with surveillance cameras. Harrah's Director of Security, who reports to Ashley, showed examples of how the cameras help to prevent or at least make surveillance staff aware of criminal behavior. He showed an example of a "faller" staging a fall, apparently to create an opportunity to sue the casino. The surveillance film showed a man pouring soda on the steps of a stairwell and climbing to the top of the stairs. After discarding the soda can, he then descended the stairs and "fell" as if he had slipped in the puddle of soda.

Another film clip showed a young man deftly picking the pockets of gamblers at a gaming table. He was noticed and apprehended. In another incident, four men arrived at a roulette table separately. They did not acknowledge each other, but worked together to place a bet on a number, after the roulette wheel ball had fallen into the hole of the winning number. One of the ploys was to hinder the view of the casino employee responsible for observing all table activity, thereby preventing him from seeing the move. Unfortunately, for the casino, the fraudsters, probably aware that the casino was on to them, exited the hotel.

Back to the Seaside

Conference sessions covered many other fraud-related areas including investigating check fraud, anti-money laundering compliance programs, fraud risk assessment, kickbacks, establishing a fraud/misconduct plan, reinsurance sleight of hand, and the foreign corrupt practices act. We will mine these areas for future articles. Next year, practitioners will have an opportunity to gain the knowledge to be gained at similar sessions and to network with other practitioners. Next year's conference, perhaps ironically, is scheduled to be held in San Diego.

Extraordinary Experts

Two CPAs were recognized for their contributions to their profession, especially their efforts related to enhancing the knowledge and skills of CPAs in the areas of fraud and litigation services. At the AICPA National Conference on Fraud and Litigation Services Conference in Las Vegas, September 28-29, 2006, Thomas F. Burrage, Jr., Chair of the AICPA Fraud and Litigation Services Committee cited the many contributions of Ronald L. Durkin, CPA, CFE, CIRA, and Jeffrey H. Kinrich, CPA/ABV.

Volunteer of the Year

Kinrich was awarded the FLS Volunteer of the Year Award, an award given for outstanding service as a member of the Fraud and Litigation Services Committee. He is a managing principal at the Analysis Group, Los Angeles.

Lifetime Achievement Award

Durkin was awarded the first-ever FLS Lifetime Achievement Award. Durkin is a partner in the Los Angeles office of KPMG's forensic practice. For many years, he has served as member or chair of AICPA committees. He is currently a member of the AICPA Business Valuation and Forensic and Litigation Services Executive Committee, and he has served as the chair of the AICPA Antifraud Programs and Controls Task Force.

Unfortunately, space doesn't permit a description of Durkin's and Kinrich's many contributions and accomplishments.

The Application of Regression Analysis to the Direct Market Data Method

Part 2: Performing a regression analysis using Microsoft Excel

By Mark G. Filler, CPA/ABV, CBA, AM, CVA, and James A. DiGabriele, D.P.S., CPA/ABV, CFE, CFSA, DABFA, Cr.FA, CVA

Like all Microsoft Office products, there are at least two ways to do anything in Excel, including regression analysis (RA). Rather than develop a tutorial that demonstrates all the possible ways Excel's RA features can be put to use, the authors will focus on instructing you in the use of the functions they use daily in their business valuation (BV) practices.

As we showed in Part 1 of this series, a picture is worth a thousand words, so let's start there. Figure 1 represents a sample of 15 sales transactions drawn from the Bizcomps database, without correcting for the fact that some of the transactions include seller financing with below-market rates of interest, an infirmity we will address later in this article. For ease of instruction, we are showing only those columns of information provided by Bizcomps that are pertinent to the task at hand. Please recreate Figure 1 in Excel on your own computer, or at a minimum, just fill in columns F for SDE and H for Selling Price, save the worksheet, and then follow the instructions below.

First, select the range F3:F17, then hold down the control key and select the range H3:H17. Click on the Chart function button, click XY (scatter), click next, click next again, remove the legend by right-clicking and selecting clear, select the Titles tab, enter Price to SDE as the chart title, enter SDE ($) as the X axis value and Price ($) as the Y axis value, click next, and place the chart in a new sheet. Your chart should look like Figure 2. Now, right click on any one of the data points, choose add trendline, select Linear type, click on the Options tab and select Display equation and Display R-squared. Click OK and save the workbook. Your chart should now look like Figure 3.

You now have a visual presentation of the relationship between the x-variable, SDE and the y-variable (the selling price), along with the equation for predicting selling prices, as well as a measure of goodness of fit, the equation's r-squared value. The chart is dynamic, not static, which means that if we change any of the data in Figure 1, the chart will automatically update. Don't mind the low R^2 and the outlying data points; we'll deal with those in a later article. For now, let's focus on learning about Excel's RA functions.

Analysis ToolPak

A static presentation of RA, useful for reports, can be found in Excel's Analysis ToolPak. If you don't already have the ToolPak loaded into Excel, go to Tools, Add-ins, and select Analysis ToolPak and Analysis ToolPak-VBA, and click OK. This will load the ToolPak for you. To use the ToolPak, go to Tools, Data Analysis, scroll down and select Regression, and click OK. This will bring up the regression analysis tool. The input Y range is H2:H17, and the Input X range is F2:F17. Select Labels, and for output, select New Worksheet Ply, and then click OK, and save the workbook. Your output will look like Figure 4 after you have deleted columns H and I, have selected the whole output section A1:G18, have clicked on Format, selected columns, and have chosen AutoFit Selection. Notice that R square is the same number as R^2 in Figure 3, and that the coefficients for the Intercept and SDE are the same numbers as in the equation in Figure 3. We will explain the purpose of the additional information contained in the Summary Output later in this series of articles.

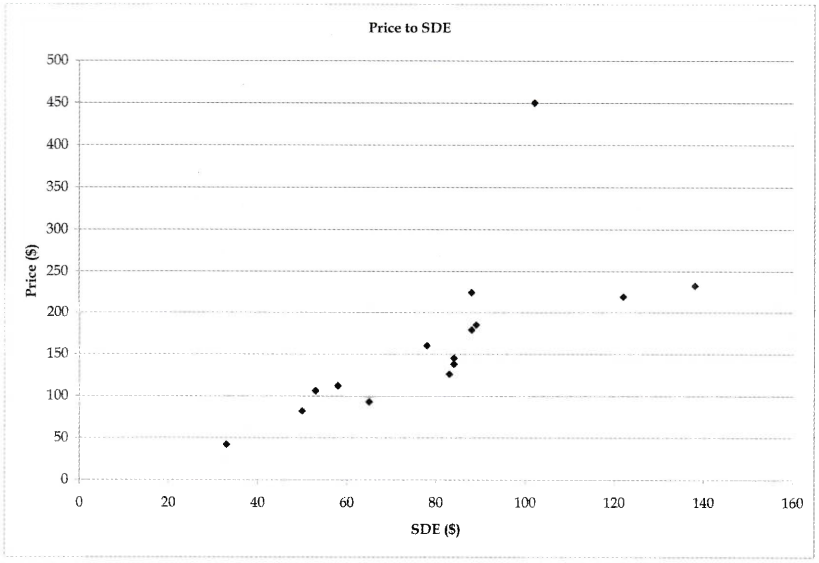
Another way to do an RA that contains almost as much information as the static regression analysis tool output is to use Excel's array formula in conjunction with one of its statistical functions. Beneath the columns for SDE and Selling Price in Figure 1 that you previously created, select and highlight with the cursor an area 2 columns wide and 5 rows deep, say the range H23:I27. Click on the Paste Function button, on the left side select the Statistical function category, and on the right side, select LINEST and click OK. For Known Y's, select

Figure 1

BIZCOMPS DATA

Data No.	SIC CODE #	Business Type	Annual Revenue	SDE	Sales Date	Selling Price	Per Cent Down	Terms	Area	Days on Market
1	2396	Silk Screen Printing	205	50	8/31/1993	82	70	2 Yrs @ 8%	Baton Rouge, LA	
2	2396	Silk Screen Printing	248	33	8/13/1999	42	100	N/A	Midwest	120
3	2396	Silk Screen Printing	283	58	9/23/1998	112	28	4 Yrs @ 8%	Ohio	201
4	2396	Silk Screen Printing	299	89	9/30/1998	185	21	6 Mos @ 10%	Tampa, FL	110
5	2396	Silk Screen Printing	346	83	6/30/1994	126	39	5 Yrs @ 9%	Central Florida	
6	2396	Silk Screen Printing	350	122	12/7/2001	220	45	4 Yrs @ 10%	Florida	118
7	2396	Silk Screen Printing	376	88	6/12/2001	179	100	N/A	Spokane, WA	120
8	2396	Silk Screen Printing	379	78	10/22/2002	160	100	N/A	San Diego, CA	87
9	2396	Silk Screen Printing	401	84	10/1/1998	145	33	10 Yrs @ 8%	Spokane, WA	350
10	2396	Silk Screen Printing	403	53	5/31/2002	106	76	10 Yrs @ 7	Tulsa, OK	90
11	2396	Silk Screen Printing	406	84	4/26/2002	138	50	3 Yrs	Colorado	166
12	2396	Silk Screen Printing	412	88	4/16/2002	225	100	N/A	San Francisco	236
13	2396	Silk Screen Printing	416	65	9/12/2002	93	100	N/A	Florida	54
14	2396	Silk Screen Printing	436	102	11/30/2000	450	100	N/A	Denver, CO	
15	2396	Silk Screen Printing	448	138	1/20/2000	233	20	10 Yrs @ Pr+2.3	Stockton, CA	170

Figure 2



H3:H17; for Known X's, select F3:F17 and enter TRUE for both Const" and "Stats. Do not click OK. Instead, hold down Control and Shift at the same time and simultaneously hit Enter. Save the workbook. Your output should look like the "Summary Output" in Figure 5. We have added a title and explanatory phrases to describe the output. This output, with some additional minor calculations, provides the same information as the regression analysis tool with the added benefit of being dynamic.

In addition to the three ways described above to simultaneously create all the elements of the regression equation, we also saw in Part 1 of this series that we can create the elements individually by use of the SLOPE and INTERCEPT functions. Now that we know how to develop the RA equation, let's explore two of the options Excel gives us to put it to use.

Those options consist of TREND, a function that implements the equation in one step, and second, the creation of a formula that draws on the intercept and SDE coefficients from the array formula summary output. Somewhere to the right of Figure 1, say starting at column O, please enter in row 2 the labels Trend and Array Formula Output in columns O and P. Select cell O3; click on the Paste Function button; on the left side, select the Statistical function category, and on the right side, select TREND and click OK. For Known Y's, select H3:H17 and hit the F4 function key to make the range reference absolute; for Known X's, select F3:F17 and hit the F4 key; and for X, select F3 and enter TRUE for Const. Then click OK. Cell O3 should present 91.60 as the predicted value.

Select P3 and enter the following formula: =+$I$23+$H$23*F3. This is the slope and intercept formula that we used in Part 1 of this series but with the difference that the coefficients have already been determined by another function, rather than using the SLOPE and INTERCEPT functions directly in the formula.

Cell P3 should also present 91.60 as the predicted value. Next, copy cells O3 and P3 down to row 17 and save the workbook. If each row does not contain the same numbers across the columns as shown in the Summary Output in Figure 5, you did not succeed in making the range references absolute in row 3 and you should try that step again.

Let's perform two more calculations to set up the worksheet for use in the next article, and then we'll finish by predicting the value of a sample subject company.

These two calculations are automatically performed for you in the regression analysis tool, and can be part of the output if you select "residuals" and "standardized residuals" in the regression command. However, because the regression tool is static, its use is inappropriate for the type of exploratory analysis we will be doing. In cells Q2 and R2 of what was originally Figure 1 but what is now Figure 5, place the labels Residuals and Standardized Residuals. In cell Q3, enter the formula: =+H3-O3, and copy it down to row 17.

This number is the difference between the actual selling price value and the value that the regression equation predicted for each individual selling price (the regression line). In cell R3, enter the following equation:

=STANDARDIZE(R3,AVERAGE($R$3:$R$17),STDEV($R$3:$R$17))

and copy it down to row 17. This formula in effect divides each residual by the standard deviation of the residuals. The result shows how many standard deviations each residual is from the average, which makes it easy to identify outliers, a topic we will explore in the next article. From the values shown in the Residual column of Figure 5, you can see that there is one residual that seems larger than the others. It is Data No. 14, found in row 16 and which has a standardized residual value of 3.326. You'll want to keep an eye on this observation as we continue to explore this regression model. As we'll show you in a later article, the residuals play an important role in determining the appropriateness of any regression model.

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Figure 3

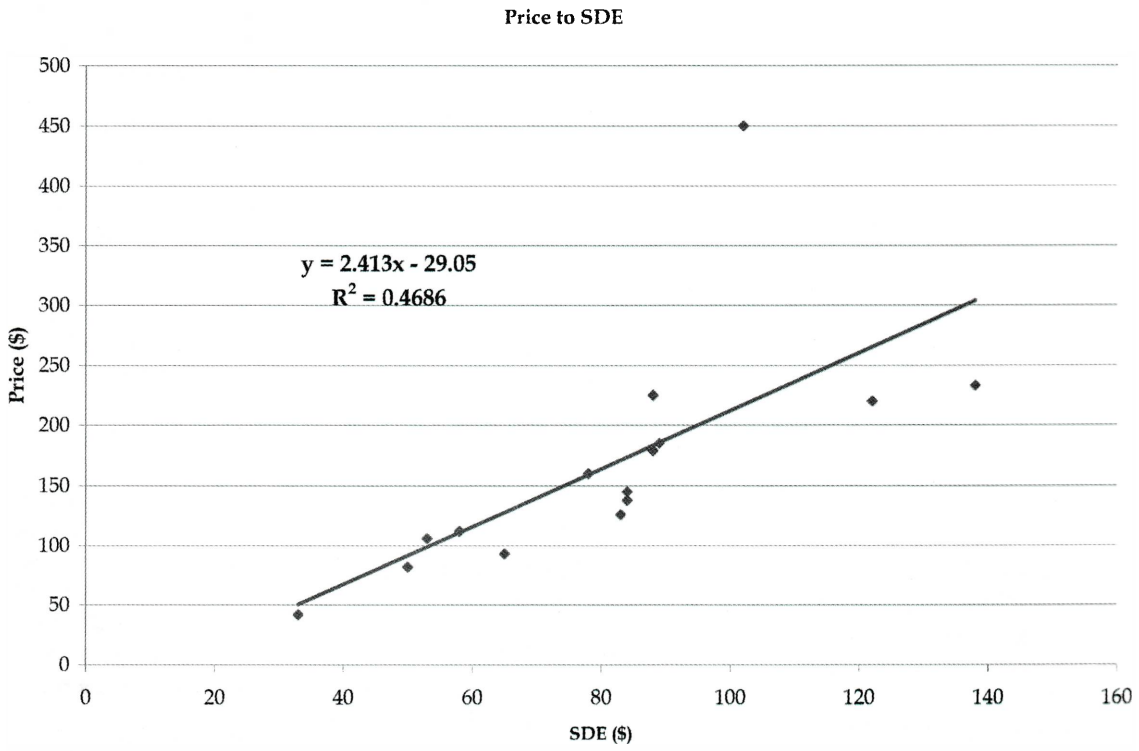

Figure 4

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.6845
R Square	0.4686
Adjusted R Square	0.4277
Standard Error	72.6775
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	60541.268	60541.268	11.462	0.005
Residual	13	68666.332	5282.026		
Total	14	129207.600			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-29.050	60.7044	-0.4786	0.6402	-160.1939	102.0938
SDE	2.413	0.7127	3.3855	0.0049	0.8732	3.9527

Figure 5

BIZCOMPS DATA

Data No.	SIC CODE #	Business Type	Annual Revenue	SDE	Sales Date	Selling Price	Per Cent Down	Terms	Area	Days on Market	Trend	Array Formula Output	Residual	Standardized Residual
1	2396	Silk Screen Printing	205	50	8/31/1998	82	70	2 Yrs @ 8%	Baton Rouge, LA		91.60	91.60	-9.60	-0.137
2	2396	Silk Screen Printing	248	33	8/13/1999	42	100	N/A	Midwest	120	50.58	50.58	-8.58	-0.122
3	2396	Silk Screen Printing	283	88	9/23/1998	112	28	4 Yrs @ 8%	Ohio	201	110.90	110.90	1.10	0.016
4	2396	Silk Screen Printing	299	89	9/30/1998	185	21	6 Mos @ 10%	Tampa, FL	110	185.70	185.70	-0.70	-0.010
5	2396	Silk Screen Printing	346	83	6/30/1994	126	39	5 Yrs @ 9%	Central Florida		171.23	171.23	-45.23	-0.646
6	2396	Silk Screen Printing	350	122	12/7/2001	220	45	4 Yrs @ 10%	Florida	118	265.33	265.33	-45.33	-0.647
7	2396	Silk Screen Printing	376	88	6/12/2001	179	100	N/A	Spokane, WA	120	183.29	183.29	-4.29	-0.061
8	2396	Silk Screen Printing	379	78	10/22/2002	160	100	N/A	San Diego, CA	87	159.16	159.16	0.84	0.012
9	2396	Silk Screen Printing	401	84	10/1/1998	145	33	10 Yrs @ 8%	Spokane, WA	350	173.64	173.64	-28.64	-0.409
10	2396	Silk Screen Printing	403	53	5/31/2002	106	76	10 Yrs @ 7	Tulsa, OK	90	98.84	98.84	7.16	0.102
11	2396	Silk Screen Printing	406	84	4/26/2002	138	50	3 Yrs	Colorado	166	173.64	173.64	-35.64	-0.509
12	2396	Silk Screen Printing	412	88	4/16/2002	225	100	N/A	San Francisco	256	183.29	183.29	41.71	0.596
13	2396	Silk Screen Printing	416	65	9/12/2002	93	100	N/A	Florida	54	127.79	127.79	-34.79	-0.497
14	2396	Silk Screen Printing	436	102	11/30/2000	450	100	N/A	Denver, CO		217.07	217.07	232.93	3.326
15	2396	Silk Screen Printing	448	138	1/20/2000	233	20	10 Yrs @ Pr+2.3	Stockton, CA	170	303.94	303.94	-70.94	-1.013
				81							166.40	166.40		

SUMMARY OUPUT

Coefficient - SDE	2.313	-29.050	Coefficient - Intercept
Standard Error - SDE	0.713	60.704	Standard Error - Intercept
R Square	0.469	72.678	Standard Error
F stat	11.462	13	Residual df
Regression Sum of Squares	60541.268	68666.332	Residual Sum of Squares

Now let's predict the value of our sample subject company.

Predicting Value

In cell F20 of Figure 5, enter the number 81 that will represent the SDE of our subject company. We wish to predict the selling price, or value, of certain of its assets using the Direct Market Data method. That is, based on the relationship between value and SDE of other silk screen-printing companies that have been sold, what is the predicted value of our sample subject company's assets? Copy cells O17:P17 down to O20:P20, skipping over rows 18 and 19. Save the workbook. Your answer should be 166.40, and it should appear in both cells. Since this number represents only the value of the sample subject company's intangible and fixed assets, in a later article, we'll show you what needs to be added to and subtracted from this number to arrive at a value for a company's equity for both S and C corporation modes.

Seller Financing

We'd like to return to the topic of seller financing, referred to at the beginning of this part of the series. We all know that seller financing almost always carries a below-market rate of interest that results in the selling price being overstated. To prove this point, divide your data set into two segments, one consisting of all cash transactions, and the other consisting of seller-financed transactions. You will find that the one that consists of all cash transactions (9 count) has a Price/SDE average ratio of 1.78, and the other consisting of those that had some seller financing involved (6 count) have an average ratio of 2.29. This overstatement, which typically runs between 9% and 13% of the selling price, can be relieved by following Toby Tatum's procedure as outlined in his seminal text, *Transaction Patterns*. You can convert the six transactions that were supported by seller financing into all-cash equivalent selling prices by use of present-value techniques, which should be done so that there will be comparability among all the data, both all-cash and seller-financed transactions.

The discount rate used to determine the present value of the seller-financed sales is derived from a formula developed by Toby Tatum in Chapter 3 of *Transaction Patterns*. Essentially, it starts with 14% and adds 1% for each 1/10th of the selling price that is seller-financed. So, if a transaction is 70% seller-financed, the discount rate is 21%. This makes sense for two reasons, namely, (1) it's the formula that reduces the average Price/SDE multiple for seller-financed transactions down to the average Price/SDE multiple for all-cash transactions in the Bizcomps database, and (2) seller paper is usually behind the bank, is not collateralized, and will not be recovered upon a default, etc.; it is essentially a very low-grade junk bond and not a publicly traded junk bond either. Once revised, the selling prices would then be substituted back into the Bizcomps worksheet for further analysis.

We haven't demonstrated this technique because we already have enough topics to show you, and we think Tatum's book is something you should have in your library if you are going to apply RA to the Bizcomps database.

Next time we'll answer more questions: Why don't we stop right here and bring this methodology into our BV practices? Why does simple linear regression, otherwise known as ordinary least squares, that we have shown you here in Part 2, rarely give us the right answer when applied to the Bizcomps database in the simple manner demonstrated here, and what can we do about it?

Litigation Services Lessons

The following article summarizes a few of the presentations at the AICPA Fraud and Litigation Services Conference in Las Vegas, September 28 and 29.

As at past conferences, this year's conference offered many opportunities for an update on many of the matters on which litigation services providers need to stay current. There were presentations on case law, issues related to calculating economic damages, ethics, e-discovery, expert reports, research, and giving expert testimony. The following are summaries of three presentations, two of which covered roles that practitioners might play in providing litigation services.

The Practitioner's Role in Preventing Lawsuits

Thomas R. Johnson, JD, the presenter at the session, "Alternative Dispute Resolution and the Financial Expert," serves as alternative dispute resolution (ADR) counsel to Kirkpatrick & Lockhart Nicholson Graham LLP, a firm of approximately 1,000 lawyers. For more than 25 years, Mr. Johnson, who is based in Pittsburgh, PA, has promoted lawsuit prevention through early case assessment and alternative dispute resolution. At the presentation outset, Mr. Johnson said his goal was to familiarize practitioners with the types and techniques of ADR and address how, when, and where they could or should be involved in ADR as a party expert/advocate, an independent expert, a neutral, or appointed receiver, monitor, or overseer. In addition, the practitioner can or should be a client adviser regarding the usefulness of ADR.

Mr. Johnson said that some would argue that the practitioner as client adviser is obliged to assist the client in resolving some issues before engaging a lawyer to do so.

A growing proportion of legal disputes are being resolved in ADR proceedings, Johnson said, and ADR proceedings are growing in number and popularity. The reasons for their growing popularity include the perception that ADR disputes seem to be settled quickly. Johnson said that speedier resolution is true most of the time, although some cases seem to go on forever. ADR is also perceived to be cheaper. In addition, contract provisions and court-mandated programs often require that ADR be the first recourse in legal disputes.

Confidentiality is also an attractive benefit of ADR. For example, parties in disputes can maintain the secrecy of their business methods more easily during ADR than during a public prosecution. Another advantage is that parties increase their comfort level by choosing the personality or demeanor of the participating neutral. In addition, the parties can tailor rules and procedures to the nature of the dispute. Other attractive characteristics of ADR are relaxed rules of procedure and evidence, the direct involvement of decision makers, and opportunities for creative win-win outcomes.

Furthermore, ADR proceedings help control the risk of runaway awards and avoid adverse public legal precedent, which is particularly important in disputes involving intellectual property, product liability, and patent infringement. Finally, Johnson attributed the increased popularity of ADR proceedings to the growing rosters of skilled, trained experienced neutrals. He cited resources for ADR training that include private practitioners; the American Arbitration Association (www.adr.org); CPR, which is the International Institute for Conflict Prevention and Resolution (www.cpradr.org); and JAMS, which is Judicial Arbitration, and Mediation Services (*www.jamsadr.com*).

Mr. Johnson then described the various types of ADR proceedings, their purpose and characteristics, the situations and kinds of disputes each type of proceeding may be suited for, and the particular issues associated with them. He covered early case assessment (ECA), mediation, arbitration, private trials, executive trials, mini trials, rocket dockets, and collaborative law commitments.

Johnson described the financial expert's role in some of different types of ADR proceedings, including the following:

- *Early Case Assessment (ECA)*
  - Prior to filing for litigation, the financial expert can advise on accounting issues, provide forensic accounting services, calculate damages estimates, and address other expense issues.
  - After filing, there are few opportunities in court-imposed ECA, but there may be opportunities to participate in party-initiated ECA or act as a court-appointed independent expert.
- *Mediation*. The financial expert can assist by overseeing or monitoring the formation of a creative solution on behalf of a party. The expert can also advise a party during mediation, or may be engaged by an evaluative mediator as an independent expert. In addition, a practitioner can serve as an independent trustee, or a parties- or court-appointed receiver or overseer.
- *Arbitration*. In arbitration, the practitioner can serve as:
  - Consulting or testifying expert
  - Party-appointed arbitrator
  - Independent expert to advise arbitrators
  - Impartial neutral with specialized expertise
- *Private trials, executive trials, and mini trials*. In these proceedings, the practitioner can:
  - Serve as consulting or testifying expert
  - Assess "jury" understanding of financial issues
  - Serve as "expert" neutral on a three-person panel
  - Serve as an independent expert to advise a judge in a binding trial

In general, Johnson says, opportunities for financial experts are in the traditional roles of consulting expert and testifying expert. Other opportunities are in ECA, being an independent advising neutral, serving as a neutral, or serving as appointed receiver or monitor. Johnson advised the conference attendees to

Continued on next page

bring ADR proceedings to the attention of their clients and colleagues and thereby expand the market.

Shareholder Disputes

In his presentation, "The Corporate Divorce: Cross-Shareholder Disputes," Paul R. Bessette covered shareholder disputes in both public companies and privately held companies. Mr. Bessette is a partner in Akin Gump Strauss Hauer & Feld LLP and the national chair of its securities litigation practice group. According to Bessette, the role of the accountant is expanding in class actions. Possible roles for the accountant in shareholder litigation include serving as consultants and experts in class actions and shareholder derivative litigation and in other litigation, such as cases involving a public company's going private or merging. Also, forensic accountants have an expanding role in internal investigations.

Securities fraud and class action filings have declined in 2006. It is unclear whether the decrease represents a trend or just a dip. A significant reason for the decline, he believes, is the decreased volatility of the market. Other reasons include the enactment of the Sarbanes-Oxley Act of 2002, especially Section 404, and the expiring statute of limitations on cases from the "boom/bust" era. Other contributors to the decline include a recent focus on derivative cases and, possibly, the fallout from the Milberg Weiss indictment (see sidebar on page 12).

Securities class action settlements, however, have increased dramatically. Mr. Bessette attributes some of the increase to the expanding role of institutional investors serving as lead plaintiffs. Additional reasons include the expansion of cases to secondary actors, such as accountants, underwriters, and lawyers, the increased scrutiny of the Securities Exchange Commission, the Department of Justice and state attorney generals.

Increasing too are cases with accounting allegations. Complaints alleging specific accounting irregularities rose from 45% in 2005 to 67% in the first half of 2006. Cases with the auditor as codefendant remain low, however, as accountants were named in only 4% of cases in 2004 and 3% in 2004. The most common accounting allegations included material weaknesses in internal controls, as well as the following:

- Revenue recognition (51%)
- Overstatement of accounts receivable (22%)
- Understatement of liabilities (18%)

Dissension in Closely Held Companies

Private company shareholder disputes often involve family relationships. They are costly, Mr. Bessette said, and sometimes lead to the failure of the business. Typical disputes involve claims of shareholder oppression arising from conflicts between majority and minority shareholders. Other factors include reasonable expectations are being frustrated or majority shareholders have monopsony power.

The remedies in such conflicts include economic damages or equitable remedies, such as dissolution, a buyout, or partition of the property. In the case of money damages, Mr. Bessette observed that seeking money damages typically involves costly litigation and, in the end, the majority still will have control. When dissolution is sought, the practitioner and plaintiff need to be aware that courts are usually reluctant to dissolve companies. Furthermore, dissolution is often governed by state statute, and the standards that the plaintiff must meet vary by jurisdiction.

The Expert as Educator

Whatever the role of the practitioner in litigation, he or she may eventually serve as an expert witness. At this point, the challenge becomes getting often-complicated testimony across to a judge or jury with little experience with the subject matter presented. In meeting this challenge, it is helpful to use technology to organize documents and to demonstrate facts and concepts to judge and jury. The use of such technology was the focus of the session, "Visual Tech: Exhibits, Demonstratives and Expert Reports," presented by Daniel J. Hurteau, JD, a partner in the Business Litigation Department and a member of the ADR team of the Albany, NY, office of Nixon Peabody LLP. Mr. Hurteau began with an overview of how software can be used to support litigation. "The Litigation Tool Box," as it is called by his firm, comprises a suite of office products that the firm has put together, including Summation, Livenote, and CaseSoft products.

Mr. Hurteau also discussed the use of trial presentation software. He advises the expert to include demonstrative exhibits in his or her report to educate others. Such exhibits can help to distill information, and they can increase the chances of settlement of the case. The expert, of course, needs to work with the attorney in focusing on the facts of the case. In exhibit preparation, he or she can add value by suggesting to the attorney ways to communicate issues to jurors. The attorney and expert who get the jury to understand the facts and issues, he said, are more likely to "win."

Follow the Rules of the Road

Mr. Hurteau cited *Creating Winning Trial Strategies and Graphics* by G. Christopher Ritter (ABV Publishing, 3rd edition, paperback and CD-Rom format) as a resource for experts and attorneys in developing and using demonstrative exhibits. Hurteau drew on Ritter's guidance for some of his suggestions to the audience and comments on the issues associated with using demonstrative exhibits.

He advised practitioners to remember that the content of such exhibits cannot violate the rules of evidence. The evidence offered cannot be hearsay, and it must be relevant, fair, and accurate. To be admissible, a foundation for introducing the evidence is needed.

Hurteau also discussed some of the considerations related to having the desired impact on the jury. He advised following the "billboard principle," which is that 7.3 seconds are needed for someone to see and understand information and to recall it later. He also advised "waking up the jury" by giving them information that will make them think about the case. In developing the exhibit, the expert and attorney need to find a way to make accounting information, for example, understandable to the jury. He noted that most people are involved in finance on a daily basis so it makes

Continued on next page

sense to frame the exhibit in terms that will use their everyday experience to clarify what the exhibit attempts to demonstrate.

Prepare for Contingencies

Perhaps the foremost issue in deciding whether to use demonstrative exhibits and how to present them is to get to know the judge and the court where the case is being tried. Hurteau advises sitting down with the judge beforehand, using the exhibits to discuss issues of acceptability and discovery and the types of graphics that are acceptable. Flexibility is important because the judge may impose limitations on what can be used or may even prohibit use of exhibits.

It's also prudent to check that the kind of technology needed is available and perhaps be prepared for the possibility that it may not be working properly at the time it's needed. A practitioner in the audience explained his approach to dealing with contingencies: Before a case he is working on goes to trial, he goes to the court where it will be tried to observe what is permissible and what the technology capabilities are.

Cost was the final issue that Mr. Hurteau mentioned. The attorney and client need to discuss this issue before embarking on developing exhibits.

Secret Kickbacks in Class-Action Lawsuits

On May 18, 2006, The New York-based law firm of Milberg Weiss Bershad & Shulman and two of its name partners were indicted by a federal grand jury for allegedly participating in a scheme in which several individuals were paid millions of dollars in secret kickbacks in exchange for serving as named plaintiffs in more than 150 class-action and shareholder derivative-action lawsuits. The indictment alleges that the firm received well over $200 million in attorneys' fees from these lawsuits over the past 20 years.

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